

[0222] For example, software which describes in a computer readable format a procedure for changing the system state and an application processing operation according to the result of recognition of a human body can be installed into the HDD 214. Multi-dimensional values for user authentication processing, obtained from the human-body detection apparatus 70 may be stored in the HDD 214 in a non-volatile manner.

[0223] The media drive 215 is an apparatus in which portable media such as CDs (compact discs), MOs (magneto-optical discs), and DVDs (digital versatile discs) are loaded and which accesses the data recording surfaces thereof.

[0224] Portable media are mainly used for backing up data such as software programs and data files in a computer readable format and for transferring (that is, including sales, circulation, and distribution) them between systems. For example, software which describes in a computer readable format a procedure for changing the system state and an application processing operation according to the result of recognition of a human body can be circulated and distributed physically among a plurality of units by using the portable media. Multi-dimensional values for user authentication processing, obtained from the human-body detection apparatus 70 may be transferred among systems through the portable media.

[0225] Examples of the computer 200 shown in FIG. 25 include the compatibles or subsequent models of the personal computer PC/AT (Personal Computer/Advanced Technology) manufactured by the International Business Machines Corporation. It is also possible that the present invention is applied to computers having other architectures as the computer 200 according to the present embodiment.

[0226] In the computer 100 described above, the following states of use of the user can be identified according to the human-body detection signals  $R_{XL}$ ,  $R_{XR}$ , and  $R_{XM}$  obtained from the user input apparatus 1.

[0227] State 1: Both hands are put on the keyboard 10.

[0228] State 2: The left hand is put on the keyboard 10 and the right hand is put on the mouse 30.

[0229] State 3: Only one hand (the left hand, for example) is put on the keyboard 10.

[0230] State 4: The left hand is used to hold the portable telephone 50, and the right hand is put on the keyboard 10.

[0231] In the computer 200 connected to the user input apparatus 1 according to the present invention, for example, while an editing tool such as a drawing editor is activated, the operation can be changed according to the identification of the state 1 or the state 2. For example, while the state 1 is being detected, the keyboard 10 operates as text input mode. In response to the detection of the state 2, the mode is automatically changed to command key mode in which command keys (such as drawing generation and line-type identification) for supporting mouse operations are assigned to the left-hand part of the keyboard 10. The user does not need to input a special command to change the mode.

[0232] In FIG. 26, a processing procedure for changing the operation of the computer 200 in response to the identification of the state 1 or the state 2 while an editing tool

such as a drawing editor is activated is shown in a flowchart form. This processing procedure is implemented, for example, in a form in which the CPU 201 executes predetermined program code. The processing procedure for changing the operation of the computer 200 will be described below by referring to the flowchart.

[0233] In step S1, it is determined whether both hands of the user are placed on the keyboard 10 while an editing tool such as a drawing editor is activated in the computer 200.

[0234] When the state 1, in which both hands of the user are placed on the keyboard 10, is identified, the procedure proceeds to step S3 from the branch "Yes" of a determination block S2, and the entire keyboard 10 is operated in text input mode according to a usual key assignment.

[0235] When the state 1 is not identified, the procedure proceeds to step S4 from the branch "No" of the determination block S2, and it is further determined whether the right hand of the user is placed on the mouse 30.

[0236] When the state 2, in which the right hand of the user is placed on the mouse and only the left hand is placed on the keyboard 10, is identified, the procedure proceeds to step S6 from the branch "Yes" of a determination block S5, and the mode is changed to command key mode, in which command keys for supporting mouse operations are assigned to the left-hand part of the keyboard 10.

[0237] The computer 200 can perform netsurfing in a WWW (world wide web) space structured on the Internet, by using a web browser (known). In the computer 100 connected to the user input apparatus 1 according to the present invention, command keys for web navigation can be automatically assigned to the right-hand part of the keyboard in response, for example, to the detection of the state 3 while the web browser is activated. A memo tool for a portable telephone can be automatically activated and the text input mode of the tool is automatically set to a one-hand keyboard/"/ in response to the detection of the state 4, in which the left hand is used to operate an information communication terminal such as the portable telephone 50. The user does not need to give an explicit command to the computer 100 to change the mode. The system can detect the form of use of the user to appropriately change the processing.

[0238] In FIG. 27, a processing procedure for changing the operation of the computer 200 in response to the identification of the state 3 or the state 4 while a web browser is activated is shown in a flowchart form. This processing procedure is implemented, for example, in a form in which the CPU 201 executes predetermined program code. The processing procedure for changing the operation of the computer 200 will be described below by referring to the flowchart.

[0239] In step S11, it is determined whether only one hand of the user is placed on the keyboard 10 while a navigation tool such as a web browser is activated in the computer 200.

[0240] When the state 3, in which only one hand of the user is placed on the keyboard 10, is identified, the procedure proceeds to step S13 from the branch "Yes" of a determination block S12, and key commands for web navigation are assigned to keys at an area where the user's hand is placed on the keyboard 10.